

**Tim Leshner**

2640 Big Sewickley Creek Road  
Sewickley, PA 15143

*Phone:* 724-272-5564

*Email:* tlesher@gmail.com

*URL:* <http://apipes.blogspot.com>

**Skills**

*Platforms:* Linux, Microsoft Windows, Microsoft Windows CE.

*Languages:* C/C++ (17 years), Python (11 years), XML (8 years), SQL (5 years), Java (2 years), also familiar with Lua, Javascript, Perl, Haskell, Ruby, and Lisp.

*Tools:* Microsoft Visual C++, GNU C++, Eclipse (Java and Python), Python web development, version control (Git, Mercurial, Perforce, and Subversion), Sqlite, MySQL, Emacs.

*Technologies:* TCP/IP programming, Agile development methodologies (Scrum, XP), public key encryption, XML, numerous Internet protocols (SMTP, POP3, SNMP, HTTP, FTP), client/server architectures, Linux user-space programming, Win32 systems programming, object-oriented programming, web development, ATL, COM, ActiveX, Windows multimedia.

*General skills:* API design, user interface design, technical writing, usability study design and execution.

**Employment History****Lead Software Engineer**

*Vocollect*

*2008–Present*

Lead developer and "chief Pythonista" on next-generation IDE and firmware for voice-driven industrial wearable computers. Created customized Python interpreter for embedded devices and integrated with existing C and C++-based firmware. Designed TCP/IP-based system for controlling and debugging devices from Eclipse IDE. Conducted usability study with partners. Piloted and championed Agile development practices in Scrum environment. Mentored junior engineers and interns. Led software engineering requirements task force to design a new company strategy for turning customer needs into deliverable products. Earned intellectual property award for extensible, hybrid voice dialog runtime environment.

**Senior Software Architect**

*Smashcode*

*2007–2008*

Designed and implemented patent-pending solution for providing services via SMS. Created distributed message-based architecture for optimizing system performance under heavy load, targeting tens of thousands of simultaneous messages. Converted Java-based prototype to production system written in Python. Created gateways to present web sites as SMS applications.

**Senior Software Engineer**

*Vocollect*

*2004–2007*

Led several high-profile projects implementing voice-driven industrial wearable computers running Windows CE. Designed and implemented modular, cross-platform embedded application framework in C++, and integrated it with existing monolithic C-based application. Managed migration to Perforce. Earned intellectual property award for innovative TCP/IP-based distributed unit testing system.

**Software Engineer/Technical Lead**

*Symbol Technologies*

*2001–2004*

Led a team of five engineers developing wireless network management software in an ISO 9000-certified environment. Designed and implemented modular, C++-based, cross-platform agent architecture for monitoring and configuring large numbers of heterogeneous wireless devices. Designed and implemented inter-server communications architecture and data

caching techniques to reduce SNMP traffic across a WAN. Designed and implemented wxPython-based remote management console. Implemented automation across source control, bug tracking, build scripts, unit testing, and documentation generation.

### **Programmer**

*Tpresence*  
2000–2001

Developed peer-to-peer and client/server Internet collaboration and virtual reality visualization architecture in C++. Created system to index, synchronize, and secure web and VRML content. Designed content cataloging, signing, and authentication systems.

### **Software Engineer/Lead Software Developer**

*Conducent*  
1997–2000

Designed and developed two multiplayer Internet games using C++ (one as technical lead). Created push-based advertisement delivery system and integration SDK for third-party applications. Created and maintained web-based ad trafficking and billing systems.

### **Technical Lead/Video Systems Developer**

*Asymetrix Corporation*  
1994–1997

Served as technical lead after Asymetrix acquired DMI's video editor. Delivered two retail and five customized OEM releases in two years. Taught end-user courses on digital video.

### **Programmer**

*Digital Media International (DMI)*  
1993–1994

Developed image processing, special effects, and animation components for video editing suite. Provided technical support and conducted beta programs. Represented DMI at trade shows.

## **Education**

**BS program in Computer Science, 1990–1993**  
Bucknell University

## **Publications**

- "Extending Embedded Python with Boost and SWIG". *Python Magazine*. March 2010.
- "Uniform Management of Heterogeneous Devices". *Innovation<sup>3</sup>: Symbol Technical Conference 2003*. May 2003.
- "Determining High-Color Video Modes". *Windows Developer's Journal*. September 1999.